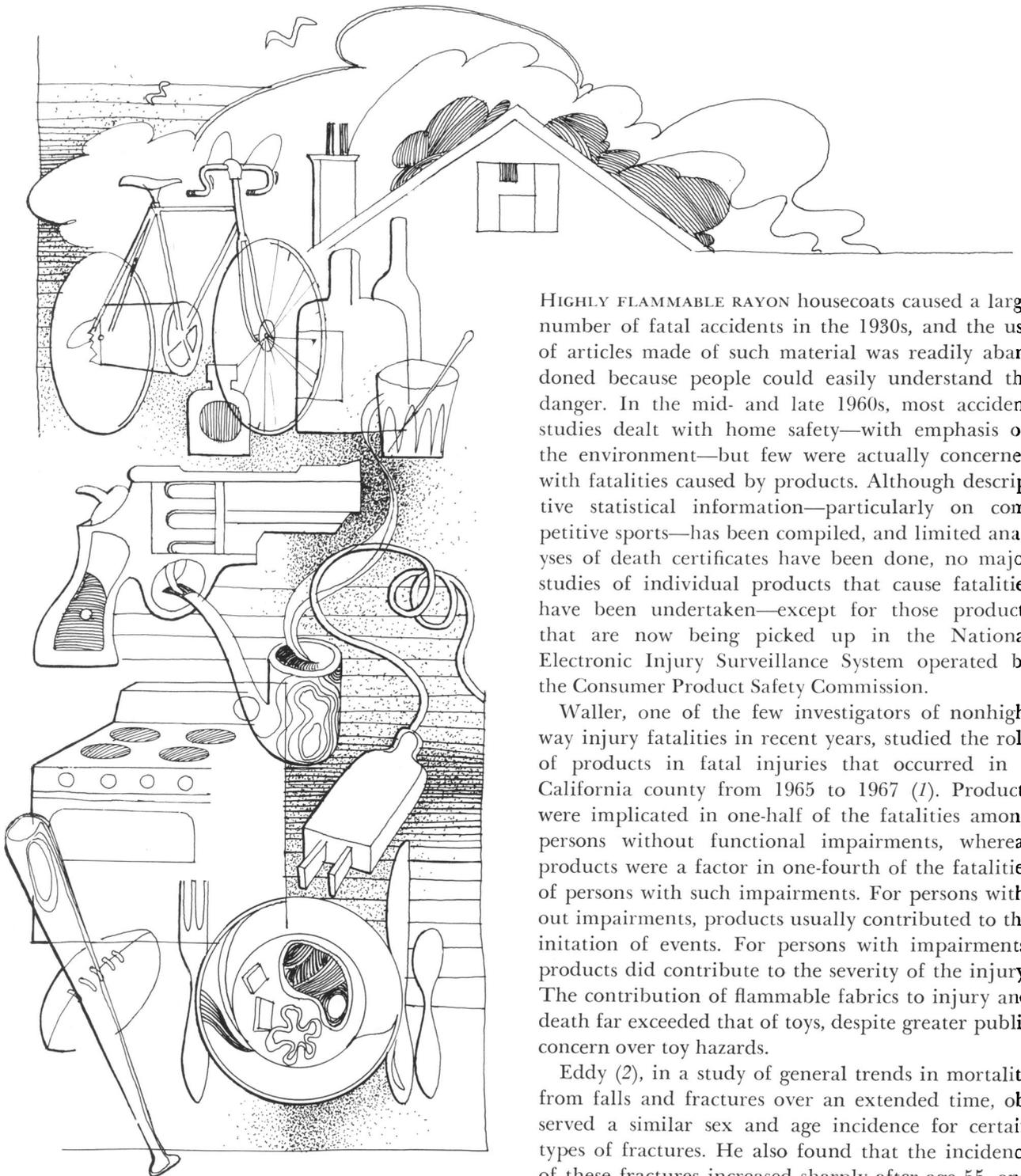


# Fatal Injuries Attributed to Consumer Products in Pennsylvania, 1971



HIGHLY FLAMMABLE RAYON housecoats caused a large number of fatal accidents in the 1930s, and the use of articles made of such material was readily abandoned because people could easily understand the danger. In the mid- and late 1960s, most accident studies dealt with home safety—with emphasis on the environment—but few were actually concerned with fatalities caused by products. Although descriptive statistical information—particularly on competitive sports—has been compiled, and limited analyses of death certificates have been done, no major studies of individual products that cause fatalities have been undertaken—except for those products that are now being picked up in the National Electronic Injury Surveillance System operated by the Consumer Product Safety Commission.

Waller, one of the few investigators of nonhighway injury fatalities in recent years, studied the role of products in fatal injuries that occurred in a California county from 1965 to 1967 (1). Products were implicated in one-half of the fatalities among persons without functional impairments, whereas products were a factor in one-fourth of the fatalities of persons with such impairments. For persons without impairments, products usually contributed to the initiation of events. For persons with impairments, products did contribute to the severity of the injury. The contribution of flammable fabrics to injury and death far exceeded that of toys, despite greater public concern over toy hazards.

Eddy (2), in a study of general trends in mortality from falls and fractures over an extended time, observed a similar sex and age incidence for certain types of fractures. He also found that the incidence of these fractures increased sharply after age 55, and that the incidence among elderly women was two

or three times that among elderly men. Mortality from domestic falls increased steadily from 1920 to 1940. For reasons not identified, mortality declined from 1940 to 1950, rose to a peak in 1960, and then started to decline again.

Fires and conflagrations are the leading cause of death for nontransportation accidents in the age group 1-4 years and the second leading cause in the age groups 5-14 and 45 and over (3). Death rates from this cause are higher among nonwhites and males than among whites and females; they start rising at the onset of cold weather when the use of heating equipment is increased. Most victims do not burn to death; rather, they die from carbon monoxide poisoning produced by fires. Although most fires start in living rooms and kitchens, most of the victims die in their bedrooms.

### The Present Study

**Objectives.** As part of the comprehensive epidemiologic study of accidental injuries associated with

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consumer products, we evaluated various characteristics of fatal accidents that took place in Pennsylvania during the 1971 calendar year. The objectives of the study were (a) to determine the incidence of fatal accidents by demographic and other attributes and (b) to assess specific causes according to age and the products implicated.

**Methods.** From the death certificates filed in the State health department, all accidental deaths—excluding those caused by moving motor vehicles—that appeared to have resulted from products were identified. A review of these death certificates yielded a total of 1,079 fatal injuries. Data regarding specific causes of death, kinds of products involved, personal characteristics of the victims, circumstances under

Table 1. Number and percentage of selected accidental deaths by sex, race, and autopsy status, Pennsylvania, 1971

Autopsy status	Total	Sex		Race	
		Male	Female	White	Nonwhite
<i>Number</i>					
Autopsy . . . . .	589	431	158	374	215
No autopsy . . . . .	414	273	141	376	38
Unknown . . . . .	76	39	37	70	6
Total . . . . .	1,079	743	336	820	259
<i>Percent</i>					
Autopsy . . . . .	54.6	58.0	47.0	45.6	83.0
No autopsy . . . . .	38.4	36.7	42.0	45.9	14.7
Unknown . . . . .	7.0	5.3	11.0	8.5	2.3
Total . . . . .	100.0	100.0	100.0	100.0	100.0

which accidents occurred, and other related information were abstracted from the certificates, coded, and analyzed.

**Findings.** A remarkable sex difference in fatal accidents was noted—743 males as opposed to 336 females (table 1). In terms of annual death rate, males (13.0 per 100,000) exceeded females (5.4 per 100,000) by more than 2 to 1. Racial difference was equally prominent; that is, the death rate for nonwhites (24.3 per 100,000) was more than three times higher than that for whites (7.6 per 100,000). Of the 1,079 victims, 589 or 55 percent had been autopsied. For unexplainable reasons, more nonwhites, 83 percent, than whites, 46 percent, had been autopsied.

More than half of the fatal accidents occurred in the home or on adjacent premises (table 2). Some sex differences were noted. Specifically, relatively more females than males died from accidents in the home, but relatively more males than females died from accidents on adjacent premises. Also, relatively

more nonwhites than whites died from home accidents, whereas relatively more whites than nonwhites died from accidents on adjacent premises. Approximately 5 percent of the fatal accidents occurred on streets or highways, 5 percent on farms, 2 percent at places of recreation, and 20 percent at other public places.

By month of occurrence of fatal accidents (table 3), November and January ranked highest and August lowest. There were some sex and racial differences. The incidence of fatal accidents among males during June was almost twice as high as among females; this difference was statistically significant. Relatively more whites than nonwhites were fatally injured during January, and an opposite racial trend appeared for August; however, these differences were not statistically significant.

Table 2. Number and percentage of selected accidental deaths by sex, race, and place of accident, Pennsylvania, 1971

Place of accident	Total	Sex		Race	
		Male	Female	White	Nonwhite
		<i>Number</i>			
Home .....	445	277	168	314	131
Home (adjacent premises) .....	109	95	14	102	7
Street or highway ..	52	43	9	43	9
Farm .....	52	47	5	52	...
School .....	2	1	1	2	...
Place of recreation .....	17	16	1	13	4
Other public place .....	220	116	104	184	36
Unknown .....	182	148	34	110	72
<b>Total .....</b>	<b>1,079</b>	<b>743</b>	<b>336</b>	<b>820</b>	<b>259</b>
		<i>Percent</i>			
Home .....	41.2	37.3	50.0	38.3	50.6
Home (adjacent premises) .....	10.1	12.8	4.2	12.4	2.7
Street or highway ..	4.8	5.8	2.7	5.3	3.5
Farm .....	4.8	6.3	1.5	6.3	...
School .....	0.2	0.1	0.3	0.3	...
Place of recreation .....	1.6	2.2	0.3	1.6	1.5
Other public place .....	20.4	15.6	30.9	22.4	13.9
Unknown .....	16.9	19.9	10.1	13.4	27.8
<b>Total .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 3. Number and percentage of selected accidental deaths by sex, race, and month of accident, Pennsylvania, 1971

Month	Total	Sex		Race	
		Male	Female	White	Nonwhite
		<i>Number</i>			
January .....	100	66	34	83	17
February .....	74	49	25	57	17
March .....	84	50	34	71	13
April .....	73	54	19	52	21
May .....	86	58	28	61	25
June .....	79	64	15	60	19
July .....	81	61	20	62	19
August .....	69	44	25	45	24
September .....	93	58	35	71	22
October .....	74	49	25	56	18
November .....	104	78	26	79	25
December .....	76	51	25	61	15
Unknown .....	86	61	25	62	24
<b>Total .....</b>	<b>1,079</b>	<b>743</b>	<b>336</b>	<b>820</b>	<b>259</b>
		<i>Percent</i>			
January .....	9.3	8.9	10.1	10.1	6.6
February .....	6.9	6.6	7.4	7.0	6.6
March .....	7.8	6.7	10.1	8.7	5.0
April .....	6.8	7.3	5.7	6.3	8.1
May .....	8.0	7.8	8.4	7.4	9.6
June .....	7.3	8.6	4.5	7.3	7.3
July .....	7.5	8.2	6.0	7.6	7.3
August .....	6.4	5.9	7.4	5.5	9.3
September .....	8.6	7.8	10.4	8.7	8.5
October .....	6.9	6.6	7.4	6.8	7.0
November .....	9.6	10.5	7.8	9.6	9.6
December .....	7.0	6.9	7.4	7.4	5.8
Unknown .....	8.0	8.2	7.4	7.6	9.3
<b>Total .....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 4. Number and percentage of selected accidental deaths by sex, race, and day of accident, Pennsylvania, 1971

Day of accident	Total	Sex		Race	
		Male	Female	White	Nonwhite
<i>Number</i>					
Monday	149	98	51	121	28
Tuesday	124	82	42	95	29
Wednesday	135	96	39	96	39
Thursday	143	88	55	121	22
Friday	146	111	35	99	47
Saturday	156	119	37	117	39
Sunday	119	73	46	98	21
Unknown	107	76	31	73	34
<b>Total</b>	<b>1,079</b>	<b>743</b>	<b>336</b>	<b>820</b>	<b>259</b>
<i>Percent</i>					
Monday	13.8	13.2	15.2	14.8	10.8
Tuesday	11.5	11.0	12.5	11.6	11.2
Wednesday	12.5	12.9	11.6	11.7	15.1
Thursday	13.3	11.9	16.4	14.8	8.5
Friday	13.5	15.0	10.4	12.1	18.1
Saturday	14.5	16.0	11.0	14.2	15.1
Sunday	11.0	9.8	13.7	11.9	8.1
Unknown	9.9	10.2	9.2	8.9	13.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

By day of the week on which fatal injuries occurred (table 4), the most frequent day was Saturday and the least frequent was Tuesday. However, sharp differences between males and females were noted. Males were significantly more likely to be fatally injured on Friday or Saturday, whereas females were more likely to be fatally injured on Thursday or Sunday. Differences between whites and nonwhites were also of interest. For unknown reasons, white victims were significantly more likely to be fatally injured on Thursday, whereas Friday was the more likely day for nonwhites.

Fatal injuries occurred during all hours of the day; however, some accidents took place more often during certain hours (table 5). For the cases for which this information was available, the most frequent hours were between 3 and 6 pm and, in decreasing order, between noon and 3 pm, between 9 am and noon, between 6 and 9 pm, between midnight and 6 am, between 6 and 9 am, and between 9 pm and midnight. Some sex differences were noted. Male victims were more likely than females to be fatally injured between 3 and 6 pm, but an opposite trend was seen from 6 to 9 am. Information regarding race was incomplete for hours of occurrence.

Table 5. Number and percentage of selected accidental deaths by sex, race, and time of accident, Pennsylvania, 1971

Time of accident	Total	Sex		Race	
		Male	Female	White	Nonwhite
<i>Number</i>					
12 midnight to 5:59 am	60	43	17	52	8
6 am to 8:59 am	52	27	25	45	7
9 am to 11:59 am	91	60	31	79	12
12 noon to 2:59 pm	102	72	30	94	8
3 pm to 5:59 pm	113	83	30	105	8
6 pm to 8:59 pm	84	54	30	75	9
9 pm to 11:59 pm	44	26	18	42	2
Unknown	533	378	155	328	205
<b>Total</b>	<b>1,079</b>	<b>743</b>	<b>336</b>	<b>820</b>	<b>259</b>
<i>Percent</i>					
12 midnight to 5:59 am	5.6	5.8	5.1	6.3	3.1
6 am to 8:59 am	4.8	3.6	7.5	5.5	2.7
9 am to 11:59 am	8.4	8.1	9.2	9.6	4.6
12 noon to 2:59 pm	9.5	9.7	8.9	11.5	3.1
3 pm to 5:59 pm	10.5	11.2	8.9	12.8	3.1
6 pm to 8:59 pm	7.8	7.2	8.9	9.2	3.5
9 pm to 11:59 pm	4.1	3.5	5.4	5.1	0.8
Unknown	48.5	50.9	46.1	40.0	79.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 6. Number and percentage of selected accidental deaths by sex, race, and marital status, Pennsylvania, 1971

Marital status	Total	Sex		Race	
		Male	Female	White	Nonwhite
<i>Number</i>					
Married	424	305	119	336	88
Never married	431	324	107	299	132
Widow or widower	154	65	89	135	19
Divorced	57	37	20	48	9
Separated	9	8	1	...	9
Unknown	4	4	...	2	2
<b>Total</b>	<b>1,079</b>	<b>743</b>	<b>336</b>	<b>820</b>	<b>259</b>
<i>Percent</i>					
Married	39.3	41.0	35.4	41.0	34.0
Never married	39.9	43.6	31.8	36.5	50.9
Widow or widower	14.3	8.8	26.5	16.5	7.3
Divorced	5.3	5.0	6.0	5.8	3.5
Separated	0.8	1.1	0.3	...	3.5
Unknown	0.4	0.5	...	0.2	0.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Marital status of the victims is shown in table 6. The majority were either never married or married. Male victims were significantly more likely than female victims to never have been married; in contrast, female victims were significantly more likely than male victims to have been widowed. Racial differences in marital status are of some interest. Specifically, although white victims were more likely than nonwhite victims to have been either married or widowed, nonwhite victims were clearly more likely to never have been married.

With respect to anatomical site of injury (table 7), death most frequently occurred from internal in-

juries (65 percent), followed by multiple injuries (10 percent), injuries to the head (9 percent), upper leg (5 percent), upper trunk (5 percent), and other parts of the body. Some sex differences were noted. Compared with females, males were more likely to be injured on the head or upper trunk including shoulders. Some remarkable differences were seen with respect to race. Except for internal injuries, which were definitely more often fatal for nonwhites (86 percent) than whites (59 percent), white victims were consistently more often injured on the head, upper leg, and upper trunk.

Regarding occupation (table 8), the five most

Table 7. Number and percentage of selected accidental deaths by sex, race, and part of body injured, Pennsylvania, 1971

Part of body injured	Total	Sex		Race	
		Male	Female	White	Nonwhite
<i>Number</i>					
Internal	705	479	226	483	222
Multiple injuries	106	67	39	88	18
Head (skull, scalp)	93	73	20	84	9
Upper leg	56	18	38	53	3
Upper trunk (including shoulders)	55	52	3	52	3
Lower trunk (including hips)	14	13	1	14	...
Upper and lower trunk	12	11	1	11	1
Neck	8	8	...	8	...
Head and trunk	5	5	...	5	...
Upper arm	4	4	...	4	...
Head, face, and neck	4	4	...	4	...
Arm and trunk	3	1	2	2	1
Lower leg (including knee)	2	2	...	2	...
Upper and lower leg	2	2	...	1	1
Head and leg	2	...	2	2	...
Arm and leg	2	...	2	2	...
Other and unknown	6	4	2	5	1
<b>Total</b>	<b>1,079</b>	<b>743</b>	<b>336</b>	<b>820</b>	<b>259</b>
<i>Percent</i>					
Internal	65.3	64.5	67.3	58.9	85.7
Multiple injuries	9.8	9.0	11.6	10.7	7.0
Head (skull, scalp)	8.6	9.8	5.9	10.3	3.5
Upper leg	5.2	2.4	11.3	6.5	1.1
Upper trunk (including shoulders)	5.1	7.0	0.9	6.4	1.1
Lower trunk (including hips)	1.3	1.8	0.3	1.7	...
Upper and lower trunk	1.1	1.5	0.3	1.4	0.4
Neck	0.7	1.1	...	1.0	...
Head and trunk	0.5	0.7	...	0.6	...
Upper arm	0.4	0.5	...	0.5	...
Head, face, and neck	0.4	0.5	...	0.5	...
Arm and trunk	0.3	0.1	0.6	0.2	0.4
Lower leg (including knee)	0.2	0.3	...	0.2	...
Upper and lower leg	0.2	0.3	...	0.1	0.4
Head and leg	0.2	...	0.6	0.2	...
Arm and leg	0.2	...	0.6	0.2	...
Other and unknown	0.6	0.5	0.6	0.6	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 8. Number and percentage of selected accidental deaths by sex, race, and occupation, Pennsylvania, 1971

Occupation	Total	Sex		Race	
		Male	Female	White	Nonwhite
<i>Number</i>					
Professional, technical, and kindred workers	68	45	23	62	6
Farmers and farm managers	24	24	...	24	...
Managers, officials, and proprietors (except farm)	34	30	4	33	1
Sales workers	21	12	9	17	4
Clerical and kindred workers	32	15	17	27	5
Craftsmen, foremen, and kindred workers	109	103	6	83	26
Operatives and kindred workers (includes miners)	120	106	14	98	22
Service workers (except private household)	90	71	19	61	29
Private household workers (excludes housewives)	4	...	4	3	1
Farm laborers and foremen	6	6	...	6	...
Laborers (except farm and mine)	125	124	1	54	71
Housewives	159	...	159	142	17
Students	108	91	17	82	26
Unemployables	14	7	7	12	2
Not applicable	95	57	38	72	23
Unknown	70	52	18	44	26
<b>Total</b>	<b>1,079</b>	<b>743</b>	<b>336</b>	<b>820</b>	<b>259</b>
<i>Percent</i>					
Professional, technical, and kindred workers	6.3	6.1	6.8	7.6	2.3
Farmers and farm managers	2.2	3.2	...	2.9	...
Managers, officials, and proprietors (except farm)	3.2	4.0	1.2	4.0	0.4
Sales workers	1.9	1.6	2.7	2.1	1.6
Clerical and kindred workers	3.0	2.0	5.0	3.3	1.9
Craftsmen, foremen, and kindred workers	10.1	13.9	1.8	10.1	10.0
Operatives and kindred workers (includes miners)	11.1	14.3	4.2	11.9	8.5
Service workers (except private household)	8.3	9.6	5.6	7.4	11.2
Private household workers (excludes housewives)	0.4	...	1.2	0.4	0.4
Farm laborers and foremen	0.6	0.8	...	0.7	...
Laborers (except farm and mine)	11.6	16.7	0.3	6.6	27.4
Housewives	14.7	...	47.3	17.3	6.6
Students	10.0	12.2	5.1	10.0	10.0
Unemployables	1.3	0.9	2.1	1.5	0.8
Not applicable	8.8	7.7	11.3	8.8	8.9
Unknown	6.5	7.0	5.4	5.4	10.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

prevalent groups included housewives (15 percent), laborers (12 percent), operatives and kindred workers (11 percent), craftsmen, foremen, and kindred workers (10 percent), and students (10 percent). There were some marked percentage differences between males and females, as well as between whites and nonwhites. For example, female victims more often had been sales and clerical workers, whereas male victims more often had been farmers, managers, officials, proprietors, craftsmen, operatives, service workers, and laborers. Nonwhite laborers were more often victims than white laborers. On the other hand, professionals and housewives were more likely to be white. However, it was not possible to determine the

relative risk of each of the designated occupational categories in each sex-race group.

Age distribution by race and sex (table 9) indicated that fatal accidents occurred among all age groups. Of the total fatalities studied, approximately 8 percent occurred among children under 5 years old; at the other extreme, nearly 14 percent occurred among persons 75 or older. Between 5 and 64 years, fatalities were most prevalent in the age group 15–24 years and least prevalent in the age group 5–14 years. In terms of annual incidence, the 75 and over age group had the highest rate (31 per 100,000), followed by the under-1 age group (26 per 100,000). Nonwhite infants had a rate of 71 per 100,000.

The data did show some significant race and sex differences. Although white children 5-14 years old were more likely to be affected than their nonwhite counterparts, nonwhites in the 15-24 and 25-34 age groups clearly were more often affected than their white counterparts. These findings probably reflect racial differences in occupational risks, at least among the older age groups. That the greater proportions of the whites were affected in the older age groups, beginning at 45 years, could significantly reflect the greater proportion of older whites in the general population. In the 15-24 and 25-34 age groups there were also greater proportions of males, whereas an opposite trend was indicated among females 75 years old and over. These differences may be explainable in terms of occupational and mobility risks, attributable to males on the one hand and differences in age composition of the base population on the other.

Fatal accidents according to specific causes of death and by age groups are shown in table 10. Excluded from this table are the relatively less-frequent causes (fewer than 20), according to the designated codes of the International Classification of Diseases.

Of the 1,079 fatalities, 227 were attributed to accidental poisoning caused by drugs, other chemical substances, or automobile exhaust gas. These accidents occurred more often among nonwhites and

males; particularly notable was a marked risk of fatal poisoning by analgesics and antipyretics in the age group 15-24 years. Most of the automobile exhaust poisoning occurred in the age group 15-54 years; more males than females were victims. During the year studied, 140 fatalities were attributed to accidental falls, primarily in the oldest age group. Inhalation and ingestion resulting in obstruction or suffocation were identified as the causes 124 fatalities; most of these occurred among children 1-4 years old and persons over 35 years old.

For 79 fatalities, the cause was attributed to complications and misadventures in therapeutic procedures; the frequency of this kind of fatality increased with age, particularly after 55 years. Mechanical suffocation caused the most deaths in the under-1 age group, whereas deaths caused by firearms were most frequent for the age group 15-24 years; most of the victims were males. Ignition of clothing caused 49 fatalities; although these accidents occurred among people in a wide range of ages, they were more frequent among very old persons. Machinery was the cause of death for 41 victims, primarily males, in a wide range of ages. For 96 poisoning fatalities the exact cause could not be identified as accidental or volitional; most of the victims were in the age group 15-34 years, and these accidents were more prevalent among males.

Table 9. Number, percentage, and rate of selected accidental deaths by age, sex, and race, Pennsylvania, 1971

Sex and race	All ages	Under 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 and over
<i>Number</i>											
White .....	820	33	34	42	128	66	72	96	110	97	142
Nonwhite .....	259	15	9	5	94	65	28	11	14	10	8
Male .....	743	30	26	34	190	109	61	67	83	75	68
Female .....	336	18	17	13	32	22	39	40	41	32	82
<b>Total .....</b>	<b>1,079</b>	<b>48</b>	<b>43</b>	<b>47</b>	<b>222</b>	<b>131</b>	<b>100</b>	<b>107</b>	<b>124</b>	<b>107</b>	<b>150</b>
<i>Percent</i>											
White .....	100.0	4.0	4.2	5.1	15.6	8.1	8.8	11.7	13.4	11.8	17.3
Nonwhite .....	100.0	5.8	3.5	1.9	36.3	25.1	10.8	4.2	5.4	3.9	3.1
Male .....	100.0	4.0	3.5	4.6	25.6	14.7	8.2	9.0	11.2	10.1	9.1
Female .....	100.0	5.4	5.1	3.9	9.5	6.5	11.6	11.9	12.2	9.5	24.4
<b>Total .....</b>	<b>100.0</b>	<b>4.4</b>	<b>4.0</b>	<b>4.4</b>	<b>20.6</b>	<b>12.1</b>	<b>9.3</b>	<b>9.9</b>	<b>11.5</b>	<b>9.9</b>	<b>13.9</b>
<i>Rate per 100,000</i>											
White .....	7.6	20.6	5.2	2.1	7.3	5.6	5.8	6.9	9.7	13.2	31.1
Nonwhite .....	24.5	71.3	10.6	2.1	51.0	51.1	22.7	9.7	17.2	18.3	32.3
Male .....	13.1	32.4	6.8	3.0	20.4	17.1	9.3	9.3	14.5	22.0	36.6
Female .....	5.5	20.2	4.7	1.2	3.2	3.2	5.5	5.0	6.3	7.1	27.7
<b>Total .....</b>	<b>9.1</b>	<b>26.4</b>	<b>5.8</b>	<b>2.1</b>	<b>11.5</b>	<b>10.0</b>	<b>7.3</b>	<b>7.1</b>	<b>10.2</b>	<b>13.5</b>	<b>31.1</b>

Table 10. Selected causes of accidental death, by age groups, Pennsylvania, 1971

Cause of death	ICDA code	All ages	Under 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 and over
<b>Accidental poisoning:</b>												
Analgesics and antipyretics .....	853	65	...	1	...	45	10	6	...	2	...	1
Other sedatives and hypnotics .....	854	52	...	...	...	15	16	12	7	...	1	1
Other and unspecified drugs and medicaments .....	859	42	...	1	...	15	5	9	7	4	...	1
Other and unspecified solid and liquid substances ..	869	26	...	...	...	7	6	4	4	5	...	...
Motor vehicle exhaust gas .....	873	42	...	...	...	7	13	4	12	3	2	1
<b>Falls:</b>												
On or from ladders and scaffolding .....	881	23	...	...	...	...	...	...	7	5	6	5
Other, from one level to another .....	884	89	3	3	3	5	4	...	4	4	12	51
On same level from slipping, stumbling, or tripping ..	885	28	...	1	2	1	...	2	2	4	6	10
Ignition of clothing .....	893	49	...	2	1	...	2	6	6	7	7	18
<b>Inhalation and ingestion causing obstruction or suffocation:</b>												
Food .....	911	103	7	14	4	7	3	9	14	18	13	14
Other object .....	912	21	4	3	3	...	4	1	...	2	3	1
Mechanical suffocation .....	913	60	25	6	7	5	2	3	1	4	2	5
Firearms, missiles .....	922	60	...	...	5	24	8	10	7	4	2	...
Machinery, not elsewhere classifiable .....	928	41	...	2	5	3	3	5	5	7	9	2
<b>Complications and misadventures:</b>												
In operative therapeutic procedures .....	930	57	...	...	...	2	2	4	6	11	14	18
In other and unspecified therapeutic procedures .....	931	22	...	...	1	2	1	...	2	8	4	4
Poisoning by solid or liquid substances, undetermined whether accidentally or purposely inflicted .....	980	96	...	...	...	54	30	6	3	1	1	1

NOTE: Categories in which fewer than 20 deaths occurred are excluded.

The products implicated in the accidental deaths and the sex and race of the victims are shown in table 11. The most frequently reported products reported were prescription drugs, including narcotics, and alcohol (297 victims). Food was the cause of death for 111 victims. Beds were implicated in 42 fatalities. In decreasing order of frequency, other products implicated were farm tractors (36 victims), cigarettes, cigars, and pipes (25 victims), medical equipment (20 victims), ladders (18 victims), cribs (13 victims), hoists, lifts, jacks, and chains (10 victims), bicycles and bicycle equipment (6 victims), and baby bedding equipment (6 victims).

### Summary and Conclusions

Of 1,079 nonhighway fatal injuries reported in Pennsylvania during 1971, at least half had occurred at the place of residence or adjacent premises. Twice as many males as females and three times as many nonwhites as whites were victims. Significantly more nonwhites than whites had been autopsied.

There was a marked seasonal variation; the highest incidence occurred during winter. The accidents took place most frequently on Saturdays. Males were affected more frequently between 3 and 6 pm, whereas for females the most frequent hours were between 6 and 9 am. Approximately the same proportion of

victims were married or never married. Housewives comprised the largest group of victims, followed by laborers and those in the occupational category of operatives, craftsmen, and foremen. The highest risk age group was 75 years and over, followed by infants—particularly nonwhite infants. Children 5-14 years old represented the lowest risk group.

In contrast to nonfatal accidents, 65 percent of all the fatalities resulted from internal injuries, followed by head injuries—which affected more males than females. Injuries of the upper leg affected more females than males. The most prevalent specific cause of death was poisoning by drugs, chemicals, or exhaust gas, followed by falls and inhalation and ingestion causing obstruction and suffocation. Deaths caused by ignition of clothing affected both very young and very old persons, and they were as prevalent as those attributed to medical equipment, beds, or cribs.

A large number of people with or without physical impairments are fatally injured directly or indirectly by consumer products. In the past, the major emphasis in injury control has been consumer education toward avoiding events that could result in accidents. Recently, this emphasis has been shifted toward creation and maintenance of products that will not cause injury and, if misused, will have

Table 11. Consumer products implicated in selected accidental deaths (non-industrial), by sex and race, Pennsylvania, 1971

<i>Product description</i>	<i>Total</i>	<i>White</i>	<i>Nonwhite</i>	<i>Male</i>	<i>Female</i>
Drugs, prescription (includes alcohol and narcotics) . . . . .	297	133	164	221	76
No product, injury only . . . . .	139	121	18	83	56
Foods . . . . .	111	95	16	60	51
Product unknown . . . . .	71	61	10	48	23
Firearms . . . . .	61	58	3	57	4
Motor vehicles, except two-wheeled vehicles (nonmoving) . . . . .	45	43	2	33	12
Beds . . . . .	42	39	3	15	27
Tractors (farm) . . . . .	36	36	...	35	1
Cigarettes, cigars, and pipes . . . . .	25	18	7	13	12
Medical equipment . . . . .	20	13	7	10	10
Ladders (not otherwise stated) . . . . .	18	16	2	17	1
Cribs . . . . .	13	9	4	7	6
Hoists, lifts, jacks, and chains . . . . .	10	9	1	10	...
Farm equipment (other than tractors) . . . . .	9	9	...	9	...
Gas space heaters, attached . . . . .	9	7	2	6	3
Gasoline . . . . .	8	6	2	7	1
Ranges (not otherwise stated) . . . . .	8	7	1	3	5
Porches, balconies . . . . .	7	6	1	6	1
Coal furnaces . . . . .	7	7	...	3	4
Chairs, not upholstered . . . . .	6	6	...	1	5
Bicycles and bicycle equipment . . . . .	6	6	...	4	2
Matches . . . . .	6	5	1	3	3
Baby bedding equipment . . . . .	6	5	1	5	1
Gas heating stoves . . . . .	5	4	1	3	2
Electrical wire, cord . . . . .	5	4	1	5	...
Plastic wrapping products . . . . .	4	2	2	3	1
Plants, trees, and shrubs . . . . .	4	4	...	4	...
Gas ranges with ovens, except self-cleaning ovens . . . . .	3	3	...	2	1
Heating stoves (not otherwise stated) . . . . .	3	3	...	2	1
Coal stoves . . . . .	3	3	...	3	...
Runners and throw rugs, door mats . . . . .	3	3	...	...	3
Wheel chairs . . . . .	3	2	1	1	2
Drugs and medications, nonprescription . . . . .	3	3	...	2	1
Gas furnaces . . . . .	2	2	...	1	1
Furnaces (not otherwise stated) . . . . .	2	2	...	2	...
Electrical outlets, built-in wiring devices, and distribution systems . . . . .	2	2	...	1	1
Step ladders . . . . .	2	1	1	2	...
Straight ladders . . . . .	2	2	...	2	...
Separate electric motors . . . . .	2	2	...	2	...
Sleds . . . . .	2	2	...	2	...
Swings, swing sets . . . . .	2	2	...	1	1
Wading pools . . . . .	2	2	...	1	1
Sports and recreational equipment, unspecified . . . . .	2	2	...	2	...
Windows and window glass, other than storm windows . . . . .	2	2	...	1	1
Products coded only one time . . . . .	61	53	8	45	16
<b>Total . . . . .</b>	<b>1,079</b>	<b>820</b>	<b>259</b>	<b>743</b>	<b>336</b>

limited likelihood of causing damage. It is important to recognize the three main factors in most accidents—the host, the product, and the environment. More studies are needed to obtain a better understanding of the intricate relationship among these three component factors in fatal injuries so that more effective control of such injuries can be attained.

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